

Appl. No. 10/710,673  
Amdt. dated January 19, 2006  
Reply to Office action of October 19, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1 (currently amended): A booster comprising:

- 5       a boosting circuit for boosting an input voltage to a predetermined output voltage;  
      an oscillator for generating oscillating signals when the boosting circuit boosts the  
          input voltage; and  
      a voltage detector electrically connected to the boosting circuit for ~~stopping the~~  
          ~~boosting circuit from boosting the input voltage~~ detecting when the output  
10       voltage of the boosting circuit reaches a predetermined voltage; and  
      an AND gate, wherein a first input end of the AND gate is electrically connected to  
          an output of the oscillator, and a second input end of the AND gate is  
          electrically connected to an output of the voltage detector for preventing the  
          oscillating signals produced by the oscillator from being provided to the  
15       boosting circuit when the output voltage of the boosting circuit reaches the  
          predetermined voltage.

2 (cancelled).

- 20    3 (currently amended): The booster of ~~claim 2~~ claim 1 wherein the oscillator is a ring  
      oscillator.

- 4 (currently amended): The booster of ~~claim 2~~ claim 1 wherein the oscillator further  
      comprises a frequency control circuit for adjusting the frequency of the oscillating  
25       signal generated by the oscillator.

      5 (original): The booster of claim 1 wherein the input voltage is provided by a fuel cell.

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6 (currently amended): The booster of claim 1 wherein the voltage detector comprises a diode, a first resistor, a second resistor, a third resistor, and a bipolar junction transistor (BJT); wherein an emitter of the BJT is grounded, a collector of the BJT is electrically connected to a first end of the first resistor, a base of the BJT is electrically connected to first ends of the second and the third resistors, a second end of the second resistor is grounded, a second end of the third resistor is electrically connected to a negative pole of the diode, and a positive pole of the diode is electrically connected to both a second end of the first resistor and the output voltage of the boosting circuit.

7 (original): The booster of claim 6 further comprising a pair of series-connected inverters electrically connected to the collector of the BJT for adjusting a logic level.

8 (original): The booster of claim 6 wherein the second resistor or the third resistor is a variable resistor.

9 (original): The booster of claim 6 wherein the diode is a zener diode.

10 (currently amended): A method of boosting battery output, the battery electrically connected to a booster comprising a boosting circuit, an oscillator, and a voltage detector, the method comprising:  
(a) detecting an output voltage of the booster with the voltage detector;  
providing an AND gate having , wherein a first input end of the AND gate is electrically connected to an output of the oscillator, and a second input end of the AND gate is electrically connected to an output of the voltage detector;  
(b) ~~if~~ when the output voltage is lower than a predetermined voltage, with the oscillator generating a periodic pulse signal for controlling a transistor of the

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booster to execute an on/off operation for adjusting the output voltage; and  
(e) ~~if~~ when the output voltage reaches the predetermined voltage value, with the  
voltage detector generating a voltage signal whose logic level is zero for turning  
off the transistor.

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11 (cancelled).

12 (currently amended): The method of ~~claim 11~~ claim 10 wherein the oscillator further  
comprises a frequency control circuit for adjusting the frequency of the oscillating  
10 signal generated by the oscillator.

13 (original): The method of claim 10 wherein the battery is a fuel cell.

14 (currently amended): The method of claim 10 wherein the voltage detector comprises a  
15 diode, a first resistor, a second resistor, a third resistor, and a bipolar junction  
transistor (BJT); wherein an emitter of the BJT is grounded, a collector of the BJT is  
electrically connected to a first end of the first resistor, a base of the BJT is  
electrically connected to first ends of the second and the third resistors, a second end  
of the second resistor is grounded, a second end of the third resistor is electrically  
20 connected to a negative pole of the diode, and a positive pole of the diode is  
electrically connected to both a second end of the first resistor and the output  
voltage of the boosting circuit.

15 (original): The method of claim 14 wherein the voltage detector further comprises a  
25 pair of series-connected inverters that are electrically connected to the collector of  
the BJT for adjusting a logic level.

16 (original): The method of claim 14 wherein the second resistor or the third resistor is a

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variable resistor.

17 (original): The method of claim 14 wherein the diode is a zener diode.

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